Listing of Claims

1. (Original) A method of determining motion compensation for an input image from motion vectors between the input image and a plurality of reference images, said method comprising the steps of:

(a) calculating a motion vector MV1 between the input image and one reference image of said plurality of reference images from a motion of at least one block unit at a second set time interval T_2 between the input image and said one reference image, said at least one block unit being a part of said input image and comprising a plurality of pixels;

(b) providing a motion vector MV2 between at least two reference images of the plurality of reference images at a first set time interval T_1, which is parallel to the motion vector MV1 at the second set time interval T_2 and different in magnitude from the motion vector MV1 at the second set time interval T_2 by a value determined by $MV1 \cdot T_1/T_2$; and

(c) calculating the motion compensation of the input image from both of (i) the motion vector MV1 between the input image and said one reference image and (ii) the motion vector MV2 between the at least two reference images of the plurality of reference images.

2. (Amended November 24, 2004) A method of determining motion compensation for an input image from a motion vector between the input image and a plurality of reference images, said method comprising the steps of:

(a) detecting a motion vector MV1 between the input image and one reference image R1 of said plurality of reference images at a second set time interval T_2;

(b) providing a motion vector MV3 between the reference image R1 and another reference image R2 of said plurality of reference images at a first set time interval T_1, said motion vector MV3 being parallel to the motion vector MV1 and different in magnitude from the motion vector MV1 by a value determined by $MV1 \cdot T_1/T_2$;

(c) obtaining a motion vector MV2 between the input image and the another reference image R2 at a third set time interval T_3 from a ~~sum~~ combination of the motion vector MV1 and the motion vector MV3, and calculating respective ~~pixels~~ pixel values corresponding to the motion vector MV1 and the motion vector MV2 from pixels ~~of the reference image R1 and the reference image R2~~ at positions corresponding to the motion vector MV1 and the motion vector MV2 and/or from peripheral pixels ~~positioned peripherally of the pixels of the reference image R1 and the~~

~~reference image R2~~ at positions corresponding to the motion vector MV1 and the motion vector MV2; and

(d) calculating motion-compensated pixel values from the calculated ~~pixels of the reference images~~ respective pixel values.

3. (Canceled).

4. (Previously Presented) A method in accordance with claim 1, wherein said motion vector MV1 between the input image and said one reference image of said plurality of reference images is calculated from a motion of at least one block unit at said second set time interval, said at least one block unit being a part of said input image and comprising a plurality of pixels.

5. (Previously Presented) A method in accordance with claim 2, wherein said motion vector MV1 between the input image and said one reference image of said plurality of reference images is calculated from a motion of at least one block unit at said second set time interval, said at least one block unit being a part of said input image and comprising a plurality of pixels.

6. (Previously Presented) A method in accordance with claim 2, wherein step (c) comprises calculating said respective pixel values in accordance with a weighted average inversely proportional to distance from pixels of the reference image R1 and the reference image R2.

7. (Previously Presented) A method of obtaining motion compensation for an input image, said method comprising the steps of:

(a) obtaining a first motion vector MV1 between the input image and one reference image R1 of a plurality of reference images at a second set time interval T2 between the input image and said one reference image R1;

(b) calculating a second motion vector MV2 between the input image and another reference image R2 of said plurality of reference images at a first set time interval T1 between the input image and said another reference image R2, said second motion vector MV2 being parallel to said first motion vector MV1 and having a magnitude satisfying the relation $MV2=MV1\cdot(T1/T2)$;

(c) calculating pixel values at positions corresponding to said first motion vector MV1 from pixels of said one reference image R1 and calculating pixel values at positions corresponding

to said second motion vector MV2 from pixels of said another reference image R2, wherein said reference images R1 and R2 are such that a motion vector MV3 between said reference images R1 and R2 has a mathematical relationship with said first and second motion vectors MV1 and MV2 in which said motion vector MV3 is parallel to and different in value from each of said first and second motion vectors MV1 and MV2; and

(d) calculating motion-compensated pixel values from both said pixel values at positions corresponding to said first motion vector MV1 and said pixel values at positions corresponding to said second motion vector MV2 calculated in step (c) to obtain said motion compensation for said input image.

8. (Previously Presented) A method of obtaining motion compensation for an input image, said method comprising the steps of:

(a) obtaining a first motion vector MV1 between the input image and one reference image R1 of a plurality of reference images at a second set time interval T2 between the input image and said one reference image R1;

(b) calculating a second motion vector MV2 between the input image and another reference image R2 of said plurality of

reference images at a first set time interval T1 between the input image and said another reference image R2, said second motion vector MV2 being parallel to said first motion vector MV1 and having a magnitude satisfying the relation $MV2=MV1\cdot(T1/T2)$;

(c) calculating pixel values corresponding to said first motion vector MV1 from pixels of said one reference image R1 and calculating pixel values corresponding to said second motion vector MV2 from pixels of said another reference image R2, wherein said reference images R1 and R2 are previous to said input image in a time sequence; and

(d) calculating motion-compensated pixel values from both said pixel values corresponding to said first motion vector MV1 and said pixel values corresponding to said second motion vector MV2 calculated in step (c) to obtain said motion compensation for said input image.

9. (Previously Presented) A method of obtaining motion compensation for an input image, said method comprising the steps of:

(a) obtaining a first motion vector MV1 between the input image and one reference image R1 of a plurality of reference

images at a second set time interval T2 between the input image and said one reference image R1;

(b) calculating a second motion vector MV2 between the input image and another reference image R2 of said plurality of reference images at a first set time interval T1 between the input image and said another reference image R2, said second motion vector MV2 being parallel to said first motion vector MV1 and having a magnitude satisfying the relation $MV2=MV1\cdot(T1/T2)$;

(c) calculating first pixel values corresponding to said first motion vector MV1 from pixels of said one reference image R1 which are neighbors of positions corresponding to said first motion vector MV1 and calculating second pixel values corresponding to said second motion vector MV2 from pixels of said another reference image R2 which are neighbors of positions corresponding to said second motion vector MV2, wherein said reference images R1 and R2 are such that a motion vector MV3 between said reference images R1 and R2 has a mathematical relationship with said first and second motion vectors MV1 and MV2 in which said motion vector MV3 is parallel to and different in value from each of said first and second motion vectors MV1 and MV2; and

(d) calculating motion-compensated pixel values from said first and second pixel values calculated in step (c) to obtain said motion compensation for said input image.

10. (Previously Presented) A method of obtaining motion compensation for an input image, said method comprising the steps of:

(a) obtaining a first motion vector MV1 between the input image and one reference image R1 of a plurality of reference images at a second set time interval T2 between the input image and said one reference image R1;

(b) calculating a second motion vector MV2 between the input image and another reference image R2 of said plurality of reference images at a first set time interval T1 between the input image and said another reference image R2, said second motion vector MV2 being parallel to said first motion vector MV1 and having a magnitude satisfying the relation $MV2=MV1\cdot(T1/T2)$;

(c) calculating first pixel values corresponding to said first motion vector MV1 from pixels of said one reference image R1 which are neighbors of positions corresponding to said first motion vector MV1 and calculating second pixel values from pixels of said another reference image R2 which are neighbors of

positions corresponding to said second motion vector MV2, wherein said reference images R1 and R2 are previous to said input image in a time sequence; and

(d) calculating motion-compensated pixel values from said first and second pixel values calculated in step (c) to obtain said motion compensation for said input image.

11. (Previously Presented) A method in accordance with claim 7, wherein said reference images R1 and R2 are previous to said input image in a time sequence.

12. (Previously Presented) A method in accordance with claim 9, wherein said reference images R1 and R2 are previous to said input image in a time sequence.